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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,914	01/26/2004	Andreas Sibrai	DS03-005B	3363
7590 10/20/2006				
STEPHEN B. ACKERMAN 28 DAVIS AVENUE POUGHKEEPSIE, NY 12603			EXAMINER NGUYEN, HIEP	
			ART UNIT 2816	PAPER NUMBER

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/764,914

Applicant(s)

SIBRAI ET AL.

Examiner

Hiep Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23,26-28,30-49,51 and 52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23,26-28,30-49,51 and 52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This is responsive to the amendment filed on 06-30-06. Applicant's arguments with respect to 35 U.S.C. 112, 2<sup>nd</sup> are not persuasive. The Applicant fails to respond to the 112, 2<sup>nd</sup> problems of the claims raised in the previous office action.

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-23, 26-28, 30-49, 51 and 52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction and /or clarification is required.

Regarding claim 1, the recitation "**a circuit** to individually provide the threshold levels for each of said capacitor switching stages, building a measure for the input and the output reference levels for each of said translinear amplifiers within said capacitor switching stages; **a circuit** to provide the output reference level for said translinear amplifiers; and a circuit to provide a signal, dependent on the tuning voltage, dedicated for the voltage controlled capacitance change, to the inputs of all of said capacitor switching stages" is indefinite because it is confusing for the following reasons:

a- it is not clear what the recitation "**a circuit** to individually provide the threshold levels for each of said capacitor switching stages, building a measure for the input and the output reference levels for each of said translinear amplifiers within said capacitor switching stages" is meant by. The Applicant is request to show what is the "output reference levels". It is not clear if the signal (Vref) in figure 9 of the present application is the input signal or the output signal. The recitation "the output reference levels" lack antecedent basis. The Applicant is requested to point out this circuit in the drawing.

b- it is not clear what the recitation "**a circuit** to provide the output reference level for said translinear amplifiers" is meant by. It is not clear as to this "the output reference

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level” is the same or different than the “**the** output reference levels” on line 17-18. It is not clear if the voltage ( $V_{ref}$ ) in figure 9 of the present application is the input signal or the output signal. The Applicant is requested to point out this circuit in the drawing.

c- - it is not clear what the recitation “a circuit to provide a signal, dependent on the tuning voltage, dedicated for the voltage controlled capacitance change, to the inputs of all of said capacitor switching stages” is meant by. As understood by the examiner, the “a circuit” comprising translinear amplifier receive the tuning voltage ( $V_{tune}$ ) controls the capacitance change. The “a circuit to control the switching operation of said switching device” on line 9 performs the same function as controlling the capacitance change. Thus, it is unclear as to these circuits are the same or different. The same rationale is applied to the recitation “said circuit to provide a signal” in claim 9 and “the circuit to provide the output reference level” in claim 10. It is unclear what they are in the drawing.

Regarding claim 17, the recitation “a translinear amplifiers” and “said translinear amplifier” on lines 18 and 19 are indefinite because it is not clear as to they are the same or different. The recitation “a circuit to drive said switching device to a fully on status” on line 22 and “a circuit to drive said switching device to a fully off status” on line 27 are indefinite because it is not clear as to these two “circuit” is the same or different than the “a translinear amplifiers” on line 18. As understood by the examiner, these three circuits perform a same function that is driving the switching devices. The Applicant is requested to point out three circuits: the “a translinear amplifiers”, the “a circuit to drive said switching device to a fully on status” and the “a circuit to drive said switching device to a fully off status” in the drawing.

The recitation “**a circuit** to individually provide the threshold levels for each of said capacitor switching stages, building a measure for the input and **the** output reference levels for each of said translinear amplifiers within said capacitor switching stages” is indefinite because it is not clear what it is meant by. The Applicant is request to show what is the “output reference levels” in the drawing. It is not clear if the signal ( $V_{ref}$ ) in figure 9 of the present application is the input signal or the output signal. The recitation “the output reference levels” lack antecedent basis. The Applicant is requested to point out this “a circuit” in the drawing. The recitation “a circuit to provide a signal, dependent on the tuning voltage, dedicated for the voltage controlled capacitance change, to the inputs of all of said capacitor

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switching stages” is indefinite because it is confusing. According to figure 9, the only circuit that controls the switching device for controlling the capacitance change is the translinear amplifier. In the claim the Applicant recites different circuits that controls the capacitance change. Clear explanation is required.

Regarding claims 20 and 21, it is not clear what “claim 1817” and “claim 1917” are meant by.

Claim 26 has the same 112, 2<sup>nd</sup> problems are pointed out in the rejection of claims 1 and 17. In claim 26, the Applicant recites different circuits that that controls the capacitance change such as the “a circuit” on line 12 and “a circuit” on line 25. Clarification is required.

Regarding claim 33, the recitation “a circuit” on line 9, “a translinear amplifier” on line 11, “a circuit” on line 14 and “a translinear amplifier” on line 20 are indefinite because they are confusing. These different circuits perform a same function that is controlling the switching devices. The Applicant is requested to point out these distinct circuits in the drawing.

Regarding claim 43, the recitation “a circuit to control the switching operation” on lines 10, “a circuit to overdrive said switching device to a fully on status” on line 13, “a circuit overdrive said switching device to a fully off status ...” on line 16, “a circuit to provide a signal...for the voltage controlled capacitance change” on lines 20-21 and “said translinear amplifier” on line 27 are indefinite because they are confusing. According to the language of the claim, they seem to be different circuits. In fact, these circuits are merely the translinear amplifier that controls the switches for capacitance change. The Applicant is requested to point out in the drawing these separate recited circuits. The recitation “said translinear amplifier” lacks antecedent basis.

Regarding claims 44 and 45, the recitations “when said switching device operates outside its desired steady ramp-up/ramp-down area on said switching device’s high resistance side uses additional circuit elements, working as a signal cutoff function” in claim 44, “when said switching device operates outside its steady ramp-u/ramp/down area on said switching device’s high resistance side uses additional circuit elements, working as a signal cutoff

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function” in claim 45 are indefinite because it is not clear what are the “additional circuit elements” and how they work as “a signal cutoff function”. The Applicant is requested to show the “additional circuit elements” in the drawing and to explain how they work as “a signal cutoff function.”

Regarding claim 46, the recitation “wherein said signal cutoff operation to drive said switching device to a fully-on status, when said switching device operates outside its steady ramp-up/ramp-down area on the lower resistance is implemented within said translinear amplifier” is indefinite because it is confusing. It is not clear what is the “lower resistance is implemented within said translinear amplifier”. Clear explanation is required.

Regarding claim 47, the recitations “a circuit to control...” on line 7 “a translinear amplifier” on line 8,9, “a circuit to provide a signal...” on line 12 and “said translinear amplifier” on line 19 are indefinite because they are confusing. They are recited to be separate circuits, but in fact they all perform a same function, as a translinear amplifier. The applicant is requested to point out on the drawing these separate circuits.

Claims 2-16, 18, 19, 22, 27, 28, 30-32, 34-42, 48 and 49 are indefinite because of the technical deficiencies of claims 1, 17, 26, 33, 43, 47, 51 and 52.

### ***Conclusion***

In view of the significant 112, 1<sup>st</sup> and 112, 2<sup>nd</sup> paragraph indefiniteness issues noted above, no prior art could be applied by the examiner at this time since the scope and meaning of the claims cannot be determined. This is not an indication of allowance.

**THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to

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37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

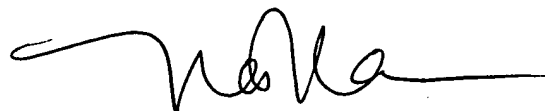
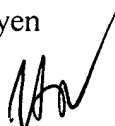
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep Nguyen whose telephone number is (571) 272-1752. The examiner can normally be reached on Monday to Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hiep Nguyen

10-18-06



TUANT.LAM  
PRIMARY EXAMINER